

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1 through 16 (cancelled)

Claim 17 (new): A method for making a junction comprising:

forming, on the surface of a semiconductor substrate, a thin film containing an element that can be electrically activated within the semiconductor substrate; and

applying light having an intensity peak at a wavelength longer than 375 nm (inclusive) to said semiconductor substrate so that said thin film is selectively excited thereby to electrically activate said element within said thin film, characterized in that said impurity introducing step is to apply plasma containing boron diluted with He to the n-Si(100) substrate and/ or n-Si (100) substrate with a plane inclined by several degrees, for its plasma doping.

Claim 18 (new): A method for making a junction according to claim 17, wherein said light applying step satisfies at least one of conditions that with respect to the light absorptance of said thin film, assuming that the wavelength is  $\lambda$ (nm) and the absorption ratio is A(%), at

the wavelength ranging from 375 nm (inclusive) to 500 nm,  $A > 7E32l-12.316$ ; at the wavelength ranging from 500 nm (inclusive) to 600 nm,  $A > 2E19l-7.278$ ; at the wavelength ranging from 600 nm (inclusive) to 700 nm,  $A > 4E14l-5.5849$ ; and at the wavelength ranging from 700 nm (inclusive) to 800 nm,  $A > 2E12l-4.7773$ .

Claim 19 (new): A method for making a junction according to claim 17, wherein said light applying step satisfies at least one of conditions that with respect to the light absorption coefficient of said thin film, assuming that the wavelength is  $l(nm)$  and the absorption coefficient is  $a (cm^{-1})$ , at the wavelength ranging from 375 nm (inclusive) to 500 nm,  $a > 1E38l-12.505$ ; at the wavelength ranging from 500 nm (inclusive) to 600 nm,  $a > 1E24l-7.2684$ ; at the wavelength ranging from 600 nm (inclusive) to 700 nm,  $a > 2E19l-5.5873$ ; and at the wavelength ranging from 700 nm (inclusive) to 800 nm,  $a > 1E17l-4.7782$ .

Claim 20 (new): A method for making a junction according to claim 17, characterized in that the light having an intensity peak at a wavelength ranging from 375 nm (inclusive) to 800 nm (inclusive) is a xenon flash lamp light.

Claim 21 (new): A method for making a junction comprising the steps of:

introducing boron as impurities in an n-Si(100) substrate and/ or an n-Si (100) substrate with a plane inclined by several degrees by plasma doping; and

applying laser light from 375 nm (inclusive) to 800 nm (inclusive) to said boron-introduced n-Si(100) substrate so that the boron is electrically activated, characterized in that said boron-introduced n-Si(100) substrate has a light absorptance of  $A > 1E19l-6.833$  for the light from 375 nm (inclusive) to 800 nm(inclusive).

Claim 22 (new): A method for making a junction comprising the steps of:

introducing boron as impurities in an n-Si(100) substrate and/ or an n-Si (100) substrate with a plane inclined by several degrees by plasma doping; and

applying laser light from 375 nm (inclusive) to 800 nm (inclusive) to said boron-introduced n-Si(100) substrate so that the boron is electrically activated, characterized in that said boron-introduced n-Si(100) substrate has a light absorption coefficient of  $a > 1E19l-7.1693$  for the light from 375 nm (inclusive) to 800 nm(inclusive).

Claim 23 (new): A method for making a junction according to any one of claims 19 to 22, characterized in

that said light absorption coefficient is measured by an ellipsometer with an incident angle of 70 degrees for a three-layer structure consisting of air, said thin film and said semiconductor substrate.

Claim 24 (new): A method for making a junction according to any one of claims 18 and 20 to 22, characterized in that after the light absorption coefficient and the thickness of the boron-introduced layer have been measured by an ellipsometer with an incident angle of 70 degrees for a three-layer structure consisting of air, said thin film and said semiconductor substrate, assuming that the thickness of the boron-introduced layer is  $D$  (cm), said light absorptance is computed as  $A = 100 \times (1 - \exp(-\alpha \times D))$ .

Claim 25 (new): A method for making a junction by introducing impurities in a solid substrate and thereafter applying an electromagnetic wave to said substrate so as to electrically activate the impurities, characterized in that prior to said light application, He plasma, Ar plasma, plasma containing He or plasma containing Ar is applied.

Claim 26 (new): A method for making a junction by introducing impurities in a semiconductor substrate and thereafter applying an electromagnetic wave to said

semiconductor substrate so as to electrically activate the impurities according to any one of claims 17 to 25, characterized in that prior to said light application, combinedly or simultaneously carried out are steps of applying He plasma, Ar plasma, plasma containing He or plasma containing Ar to said semiconductor substrate, and applying the plasma containing particles serving as impurities to the solid substrate, for its plasma doping.

Claim 27 (new): A method for making a junction according to claims 17 to 26, wherein said substrate is an SOI substrate with a Si thin film formed on the surface.

Claim 28 (new): A method for making a junction according to claims 17 to 26, wherein said substrate is a distorted Si substrate with a Si film formed on the surface.

Claim 29 (new): A method for making a junction according to claims 17 to 26, wherein said substrate is a glass substrate with a poly-Si thin film formed on the surface.

Claim 30 (new): A processed material formed by the method for making a junction according to claims 17 to 29.